



User's Manual  
Manuel de l'utilisateur  
Anwenderhandbuch  
Manuale per l'operatore  
Manual del usuario

# **P150 Super Quiet Mini Tower Case**

At Antec, we continually refine and improve our products to ensure the highest quality. So it's possible that your new case may differ slightly from the descriptions in this manual. This isn't a problem; it's simply an improvement. As of the date of publication, all features, descriptions, and illustrations in this manual are correct.

#### **Disclaimer**

This manual is intended only as a guide for Antec's Computer Enclosures. For more comprehensive instructions on installing your motherboard and peripherals, please refer to the user's manuals which come with your components and drives.

## **P150 — SUPER QUIET MINI TOWER CASE USER'S MANUAL**

The P150 is designed with Quiet Computing™ in mind. Apart from the solid steel structure (1.0 mm thick steel), there are several unique design features that make this case quiet and cool.

1. Two-layer (steel/plastic) side and top panels to deaden noise.
2. Dual hard drive mounting system for maximum noise reduction.
3. Quiet 120mm TriCool rear fan.
4. Dual front 92mm fan mounts for spot cooling hard drives
5. Intake vents along the sides of the front bezel to prevent noise from leaking toward to the user.
6. Built-in cable organizer to tuck away cables.
7. Neo HE 430 high efficiency power supply.

### **NEO HE Power Supply**

The Neo HE 430 power supply installed in this case supports the newest ATX12V version 2.2 specifications. Enhanced output power distribution supports the newest Intel and AMD processor requirements. Three +12V outputs deliver safer and more reliable power to your system's components. With up to 85% efficiency, this power supply saves energy and money on your electrical bill compared to typical power supplies. Neo HE power supplies generate less heat because of the high efficiency which keeps the power supply cooler and prolongs its working life. Also included are a variety of industrial-grade protective circuitries: OCP (over current protection), OPP (over power protection), OVP (over voltage protection), SCP (short circuit protection), and UVP (under voltage protection).

### **Special Quiet Computing Fan Operation**

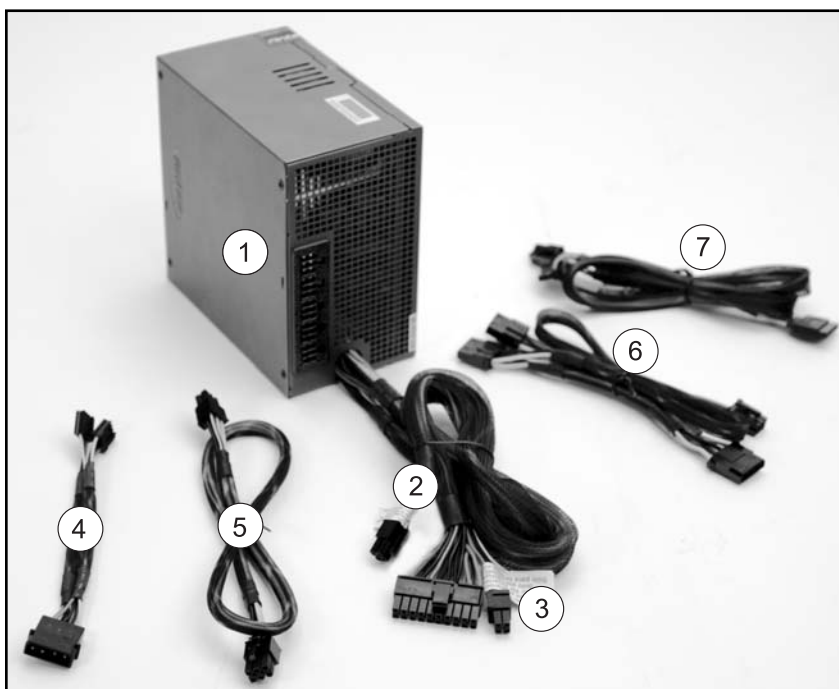
Neo HE power supplies feature an innovative design that decreases noise during normal use, but which allows for superior cooling capabilities as loads increase. Owing to its ultra high efficiency and low heat generation, Neo HE can utilize an 80mm exhaust fan that rotates slowly and quietly to blow hot air out of the power supply, speeding up as heat increases.

This power supply includes Universal Input and Active Power Factor Correction (PFC). Universal Input allows you to connect your Neo HE power supply to any AC power outlet between 100~240V without having to worry about setting a voltage switch. Active PFC improves the power factor value of the power supply by altering the input current wave shape, helping the power plant provide power to users more efficiently.

Connectors: Neo HE power supplies are ATX12V version 2.2 form factor compatible. The Neo HE430 includes a 24-pin main power connector with detachable 4-pin connector, and a 4-pin +12V power connector. In addition, Neo HE includes six 4-pin peripheral connectors, four 15-pin Serial ATA Connectors, and PCI Express Power Connector.

Power Switch: This power supply comes with a main power switch. Make sure you turn the switch to the ON ( I ) position before you boot up your computer for the first time. In normal operation there is no need to turn the switch to the OFF (O) position since the power supply is equipped with a soft on/off feature which turns your computer on and off through the soft switch on your computer case. You may need to turn the switch to the OFF position occasionally should your computer crash and you cannot shut it down with the soft switch.

Advanced Cable Management System - Neo HE power supplies feature Antec's Advanced Cable Management System. It allows you to use only the power cables that you need, thereby reducing clutter and improving airflow inside your case. Inside the package, apart from a power cord, you will find the following cables (see Picture 1):



Picture 1

**Attached to the power supply, you'll find the following:**

1. Five 6-pin output sockets, for use with the wire sets to power your drives and other peripherals.
2. 4-pin +12V connector
3. A 24-pin configurable main power connector with detachable 4-pin section for 20-pin applications.

**Advanced Cable Management Wire Set.**

- 4. One Y-adapter with one standard 4-pin Molex peripheral connector at one end and two female Floppy power connectors at the other end.
- 5. One set of wires with a 6-pin PCI Express graphic card connector at one end and a 6-pin PSU connector at the other end.
- 6. Two sets of wires with three standard 4-pin Molex peripheral connectors at one end and a 6-pin PSU connector at the other end.
- 7. Two sets of wires with two SATA drive connectors at one end and a 6-pin PSU connector at the other end. Note: The SATA connectors include a +3.3V output so you can power the latest SATA devices.

**Modularized Cables:**

#	Quantity	Part Name	Description
4	1	14 cm Molex to Floppy connectors w/cable	includes one Molex and two floppy connectors
5	1	60 cm PCI Express connector w/cable	Includes one PCI Express connector
6	2	77 cm Molex connector w/cable	includes three Molex connectors
7	2	73 cm Serial ATA connector w/cable	includes two Serial ATA connectors

This power supply is backwards-compatible to previous ATX specifications. To make sure you connect your power supply properly, please refer to the user manual supplied with your motherboard and peripherals before connecting the Neo HE to any of your devices.

- 1. Connect the 24-pin main power connector. If your motherboard uses a 20-pin connector, detach the 4-pin attachment on the 24-pin power connector (see pictures 2 and 3). **Note: the detachable 4-pin section cannot be used in place of the 4-pin +12V connector.**
- 2. Connect the 4-pin +12V connector to the motherboard.
- 3. In the package, you will find 2 sets of power supply-to-peripheral Molex connectors. Connect the 6-pin connector to any of the 6 pin sockets on the power supply and connect the peripheral Molex connectors to your peripheral devices. Repeat as necessary.
- 4. In the package, you'll find 2 sets of power supply-to-SATA connectors. Connect the 6-pin connector to any of the 6-pin sockets on the power supply and connect a SATA connector to your SATA drives. Repeat as necessary.
- 5. In the package, you'll find one PCI Express graphic card connector. It's the only 6-pin connector with 3 yellow wires and 3 black ones. Connect the 6-pin connector to any of the 6-pin sockets on the power supply and connect the 6-pin PCI Express connector marked "PCI-E" to your PCI Express graphic card if needed. **Note: Please consult the user manual supplied with your PCI Express graphic card for detailed usage instructions.**
- 6. If you have a floppy drive, connect the Y-adapter to any of the Molex connectors and connect the female floppy power connector to your floppy drive.
- 7. Connect the power cord to the power supply.



Picture 2



Picture 3

## Setting Up

1. Place the case upright on a flat, stable surface.
2. Loosen the thumbscrews from the left side panel. Remove it by swinging it out. **Note:** Don't use your fingernail to pry or lift the panels.
3. Inside the case you should see the power supply, some wiring with marked connectors (USB, PWR etc.), an installed I/O panel, a power cord, a plastic bag containing modular PSU output cables, a toolbox with more hardware (screws, brass standoffs, plastic stands, etc.), and six drive rails.
4. There are three plastic tabs on the left side of the bezel. They fasten the front bezel to the metal chassis. Release the tabs from the top down to release the bezel.
5. Swing open the bezel to about a 45° angle and gently lift the bezel upward. The front bezel will come off easily. Set the bezel in a safe place.

## Installing the Motherboard

This manual does not cover CPU, RAM, or expansion card installation. Please consult your motherboard manual for specific mounting instructions and troubleshooting.

1. Lay the case down, with the open side facing up. The drive cages and power supply should be visible.
2. Make sure you have the correct I/O panel for your motherboard. If the panel provided with the case isn't suitable, please contact your motherboard manufacturer for the correct I/O panel.
3. Line up your motherboard with the standoff holes, and remember which holes are lined up. Not all motherboards will match with all the provided holes; this is normal, and won't affect functionally. (In other words, there will likely be extra holes.)
4. Remove your motherboard by lifting it up.
5. Screw the brass standoffs into the threaded holes that line up with your motherboard. Do not overtighten the standoffs. Some standoffs may be pre-installed for your convenience.
6. Place your motherboard on the brass standoffs.
7. Fasten your motherboard to the standoffs with the provided Philips-head screws. Your motherboard is now installed.

## Connecting the Front I/O

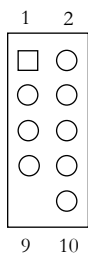
1. Connect the reset switch (labeled RESET SW) to your motherboard at the RST connector.
2. Connect the power LED (labeled POWER LED) to your motherboard.
3. Power switch (labeled POWER SW) connects to the PWR connector on the motherboard.
4. Connect the speaker (labeled SPEAKER) connector to the speaker connector on your motherboard.
5. Hard drive LED (labeled H.D.D. LED) connects to the HDD connector on your motherboard.

## Connecting the USB Ports

You will find a single 10-pin connector on a cable attached to the front USB ports. This is an Intel standard connector, which is keyed so that it can't be accidentally reversed as long as it is connected to a proper Intel standard motherboard header. Connect the 10-pin connector to your motherboard headers so that the blocked pin fits over the missing header pin.

**Note:** Please check your motherboard manual for your USB header pin layout and make sure it matches the attached table. If it does not match this Intel standard, please call Antec customer service at (800) 22ANTEC (North America) or +31 (0) 10 462-2060 (Europe) to buy a USB adapter. This adapter will allow you to connect the front USB to your motherboard on a pin-by-pin basis.

### Pin Assignment for Front Panel USB connector



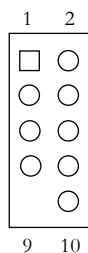
Pin	Signal Names	Pin	Signal Names
1	USB Power 1	2	USB Power 2
3	Negative Signal 1	4	Negative Signal 2
5	Positive Signal 1	6	Positive Signal 2
7	Ground 1	8	Ground 2
9	Key (No Pin)	10	Empty Pin

### Connecting the IEEE 1394 (FireWire®, i.Link®) Port

You will find a single 10-pin connector on a cable attached to the front IEEE 1394 connection. This is an Intel standard connector, which is keyed so that it can't be accidentally reversed as long as it is connected to a proper Intel standard motherboard header. Connect the 10-pin connector to your motherboard header so that the blocked pin fits over the missing header pin.

**Note:** Please check your motherboard manual for your IEEE 1394 header pin layout and make sure it matches the attached table. If you intend to connect the front FireWire port to an IEEE 1394 add-on card that comes with an external-type IEEE1394 connector, please call Antec customer service at (800) 22ANTEC (North America) or +31 (0) 10 462-2060 (Europe) to buy an adapter. This adapter will allow you to connect the front IEEE 1394 port to the external-type connector.

### Pin Assignment for Front Panel IEEE 1394 Connector



Pin	Signal Names	Pin	Signal Names
1	TPA+	2	TPA-
3	Ground	4	Ground
5	TPB+	6	TPB-
7	+12V (Fused)	8	+12V (Fused)
9	Key (No Pin)	10	Ground

### Connecting the Audio Ports

There is an Intel standard 10-pin connector (with 7 individual wires with connectors) coming out from the front panel speaker and microphone connection. If your motherboard supports Intel's standard onboard audio connector, you can plug in the 10-pin connector directly onto the board. For a non-Intel standard audio connection, you will need to plug the 7 individual connectors into the motherboard. See instructions below:

Locate the internal audio connectors from your motherboard or sound card. Consult your motherboard or sound card manual for the pin-out positions.

1. Microphone signal pin: Connect the MIC connector to this pin.
  2. Microphone power: Connect the MIC-BIAS connector to this pin.
  3. Ground pin: Connect the AUD GND connector to this pin.
  4. Front right speaker out pin: Connect the FPOUT-R connector to this pin.
  5. Front right speaker out pin: Connect the FPOUT-L connector to this pin.
  6. Rear right speaker out pin: Connect the RET-R connector to this pin.
- Rear left speaker out pin: Connect RET-L connector to this pin.

## Hard Disk Installation

This case offers two hard disk mounting options. We recommend against using both mounting methods at the same time.

### Tray Mount

There is a hard disk cage right under the external 5.25" drive. You can mount four hard drives using the trays inside it.

1. Open the front bezel as described in Setting Up section.
2. Loosen the two thumbscrews. Swing open the fan cage and gently lift the cage upward to remove it. You will see four drive trays with soft silicon grommets inside the cage.
3. Squeeze the metal clips on each side of the tray and slide the tray out.
4. Mount your hard drive into the drive tray through the bottom silicon grommets with the special screws provided. **Note:** Don't over-tighten. Over-tightening the screws will harm the vibration and noise reduction qualities of the silicon grommets.
5. Slide and lock the tray back into the case.
6. Find the appropriate power connector on the power supply and connect it to the device.
7. Repeat the same procedure for the other devices as necessary.
8. Put the front fan cage back to the case. If you plan to mount the optional 92 mm case fans, you should do it now. See Cooling section for fan installation.

### Suspension Mount

This is the ultimate hard disk mounting solution to reduce hard drive noise. There are three sets of suspenders inside the cage to mount three hard drives. Each hard drive needs two suspenders (front and rear) to mount. Note: please DO NOT transport your system with your hard disks suspension mounted. The drives may slip from the suspenders causing damage to the hard drives and to other components inside the case.

1. Remove the trays from the cages. Store them in a safe place. You won't need them.
2. Twist the front suspender as shown in Picture 4.
3. Insert the hard drive through the front suspender from the front.  
See Picture 5.
4. Twist the rear suspender and guide the hard drive through it. See Picture 6.
5. Adjust the hard drive position so it has at least 10mm clearance from the front 92 mm fan (fan not included).
6. Find the appropriate power connector on the power supply and connect it to the device.
7. Repeat the same procedure for the other drives as necessary.
8. Put the front fan cage back to the case. If you plan to mount the optional 92 mm case fans, you should do it now. See Cooling system section for fan installation



Picture 4



Picture 5



Picture 6

## 5.25" Device Installation

There are four external 5.25" drive bays (one with 5.25" to 3.5" adapter). The top two drive bays come with a universal drive door that allows you to hide your optical drive behind the door.

1. Carefully remove the metal plate covering the drive bay.
2. Take two plastic drive rails and mount them to the sides of the 5.25" device. Make sure to use the rear set of the screw holes on the drive rails for the top two drive bays and use the front set of screw holes for the lower two drive bays. Also make sure the clip on the end of the drive rail is angled away from the device and facing forward.

- Slide the device into the drive bay until you hear a click.
  - Mount the other devices accordingly.
  - Connect a large 4-pin connector from the power supply to the male 4-pin connector on each of the devices.
- To install a floppy or other external 3.5" device to the 5.25" to 3.5" adapter:
- Slide the adapter out.
  - Place the drive to the adapter and fasten the drive with screws provided.
  - Find a 4-pin floppy power connector on the power supply and connect it to the male 4-pin connector on the devices.

### Cable Organizer

There are six hooks (cable organizers) located at the back of the hard drive cage. With them you can tuck cables away to increase the airflow of the case. To get to the cable organizer you need to open the right side panel.

### Cooling System

#### The TriCool fan:

The case includes one 120mm TriCool fan installed in the rear. This fan has a three-speed switch that lets you choose between quiet, performance, or maximum cooling. (See specifications below.) The fan is installed so that the air is blowing out of the case. Connect a large 4-pin connector from the power supply to the male 4-pin connector on the fan.

Note: The minimum voltage to start the fan is 5V. We recommend setting the fan speed to High if you choose to connect the fan to a fan control device or to the Fan-Only connector found on some of Antec's power supplies. A fan-controlled device regulates the fan speed by varying the voltage supplied to it. The voltage may start as low as 4.5 V to 5V. Connecting a TriCool set on Medium or Low to a fan-control device may result in the fan not being able to start. The already lowered voltage from the fan control device will be further reduced by the TriCool circuitry below 5V.

#### Specifications:

Size: 120 x 120 x 25.4 mm  
 Rated Voltage: DC 12V  
 Operating Voltage: 10.2V ~ 13.8V

Speed	Input Current	Air Flow	Static Pressure	Acoustical Noise	Input Power
High 2000 RPM	0.24A (Max.)	2.24 m³/min. (79 CFM)	2.54 mm-H <sub>2</sub> O (0.10 inch-H <sub>2</sub> O)	30 dBA	2.9 W
Medium 1600 RPM	0.2A	1.59 m³/min. (56 CFM)	1.53 mm-H <sub>2</sub> O (0.06 inch-H <sub>2</sub> O)	28 dBA	2.4 W
Low 1200 RPM	0.13A	1.1 m³/min. (39 CFM)	0.92 mm-H <sub>2</sub> O (0.04 inch-H <sub>2</sub> O)	25 dBA	1.6 W

#### The Front 92 mm Fan Mounts

You can install two 92 mm fans to the fan cage in front of the internal 3.5" drives. These fans must be installed so that the air is blowing into the case. We recommend using Antec 92 mm TriCool fans to balance quiet performance with maximum cooling. See our web site for product information. Note: Please choose your fan speed wisely. In most cases, a medium or even low speed setting will be enough to supply adequate cooling.



### **The Washable Air Filter**

There is a washable air filter attached to the front of the 92 mm fan cage. From time to time it will be necessary to wash the installed air filter. Not washing the air filter will result in higher system temperatures and possible stability problems. We recommend checking the air filter at least once a month initially. The frequency will change depending on system usage (users whose systems run 24/7 will likely have to check/wash more often than those who don't use their systems every day) and on environmental conditions.

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